

LISTING OF CLAIMS:

The present listing of claims replaces all prior listings or versions of claims in the present application.

1. (Currently Amended) A vacuum thermal insulating valve ~~comprising~~ characterized by that, with the vacuum thermal insulating valve formed by

(a) a valve ~~comprising~~ equipped with a valve body and an actuator; and

(b) a vacuum thermal insulating box ~~that~~ which houses ~~the~~ said valve, the afore-mentioned vacuum thermal insulating box comprises

i. a square-shaped lower vacuum jacket equipped with a cylinder-shaped vacuum thermal insulating pipe receiving part on ~~its~~ side and also with an upper face ~~that~~ which is made open; and

ii. a square-shaped upper vacuum jacket hermetically fitted to ~~the~~ said lower vacuum jacket from the above and ~~the~~ square-shaped upper vacuum jacket has also with a lower face ~~that~~ which is made open; and ~~the~~

iii. a first jointed part is formed by bending ~~an~~ the inner wall and ~~an~~ the outer wall of ~~an~~ the upper end of the afore-mentioned lower vacuum jacket toward ~~an~~ the inside of the box in the shape of a brim; and also the jointed part is formed a second jointed part formed by bending ~~a~~ the center part of ~~a~~ the height direction of the side of ~~the~~ said lower vacuum jacket toward ~~an~~ the outside of the box in the shape of a brim, and further a ~~third~~ the jointed part is formed by bending ~~an~~ the inner wall and ~~an~~ the outer wall of ~~a~~ the lower end of the afore-mentioned upper vacuum jacket toward the outside of the box in the shape of a brim, and both vacuum jackets are connected ~~such~~ combined in the manner that ~~a~~ the vacuum thermal insulating side wall of the upper vacuum jacket is positioned toward ~~a~~ the vacuum thermal insulating side wall of

~~the afore-mentioned lower vacuum jacket, and wherein the third to make the jointed~~
~~part of the lower end of the afore-mentioned upper vacuum jacket and the second~~
~~jointed part of the outer wall-side of the lower vacuum jacket~~ are ~~hermetically~~
~~sealed~~ sealed ~~by installing a first thermal insulating material layer, and a fourth~~ also
~~make the jointed part of~~ formed by an ~~the inner wall of a~~ the ceiling part of the upper
~~vacuum jacket and first jointed part of the upper end of the lower vacuum jacket is~~
hermetically sealed ~~by installing a second thermal insulating material layer.~~

2. (Currently Amended) A vacuum thermal insulating valve as claimed in Claim 1,
~~wherein this is so made that a valve is equipped with a valve unit body is a unit made by a~~
~~plurality plural number of valve bodies that are being~~ integrally connected.

3. (Currently Amended) A vacuum thermal insulating valve as claimed in Claim 1,
~~wherein is so made that a heater is mounted on the a valve body and the said heater is made to~~
~~be a plane heater fixed~~ fixed ~~to the valve body.~~

4. (Currently Amended) A vacuum thermal insulating valve as claimed in Claim 3,
~~wherein the plane heater is fixed to an outer surface of the is so constituted that a valve body~~
~~to which outer surface a plane heater is fixed and the valve body further comprises an~~ with
~~which inner part comprising a valve seat and a valve seat part are equipped.~~

5. (Currently Amended) A vacuum thermal insulating valve as claimed in Claim 1,
~~wherein each is so made that a thermal insulating material layer comprises is of a silicon~~
sponge.

6. (Currently Amended) A vacuum thermal insulating valve as claimed in Claim 1,
~~wherein is so made that~~ the outer wall of the upper vacuum jacket is 2mm thick and ~~the its~~
inner wall ~~of the upper vacuum jacket~~ is 1.5mm thick, and the inner wall of the lower vacuum
jacket is 2mm thick and ~~at the lower part of the its outer wall of the lower vacuum jacket~~ is
2mm thick and ~~an the upper part of at the side wall of the outer wall of the lower vacuum jacket~~
is 1.5mm thick, and ~~wherein the inner wall and outer wall of the upper vacuum jacket and the~~
~~inner wall and outer wall of the lower vacuum jacket they~~ are made of stainless steel.

7. (Currently Amended) A vacuum thermal insulating valve as claimed in Claim 1,
~~wherein the is so constituted that a~~ vacuum thermal insulating pipe receiving part installed on
the side of the lower vacuum jacket is ~~made to be~~ a 50mm to ~150mm long cylinder-shaped
vacuum jacket made of a 2mm thick stainless steel plate, and O-rings made of ~~the thermal~~
insulating material are placed on ~~at the~~ peripheral face of one end or both ends of ~~at the~~ tip part
of ~~at the~~ vacuum thermal insulating pipe ~~to be inserted into the said~~ vacuum thermal insulating
pipe receiving part from ~~the outside~~, and the ~~afere-mentioned~~ O-rings made of ~~the thermal~~
insulating material are ~~disposede caught~~ between the vacuum thermal insulating pipe receiving
part and the tip part ~~of the vacuum thermal insulating pipethereof~~.

8. (Currently Amended) A vacuum thermal insulating valve as claimed in Claim 1,
~~wherein is so constituted that the second jointed parts and third jointed part, in the shape of a~~
brim, ~~are disposed at of the side walls of the lowerupper and upperlower vacuum jackets,~~
~~respectively, and when~~ combined in an opposite direction are pressed ~~into an appropriate~~
~~distance by a pluralityplural number of press-clips with an appropriate space.~~

9. (Currently Amended) A vacuum thermal insulating valve as claimed in Claim 1,
~~wherein a is so made that the height of an~~ the overlapped part that forms when the upper and
lower vacuum jackets are combined with the combination of the upper and lower vacuum
~~jackets which~~ forms a the side wall of the vacuum thermal insulating box and is made to be
more than 100mm.

10. (Currently Amended) A vacuum thermal insulating valve as claimed in Claim 1,
~~wherein an is so made that the inner wall face of the vacuum thermal insulating spaces of the~~
upper vacuum jacket and lower vacuum jackets undergoes ~~is performed the heat treatment~~
after plating.